

Amendments to the Specification:

Please replace the paragraph on page 34, line 23 through page 35, line 15, with the following amended paragraph:

The gene for the mutant F64L-S175G-E222G-GFP (Example 2) was excised from pTARGET with *Bam*HI and *Sal*I and sub-cloned into the IPTG-inducible, GST-fusion vector pGEX-6P1 (Amersham Pharmacia Biotech). *E. coli* JM109 cells (Promega) containing an expression vector with the GST-GFP gene fusion were grown at 30°C to an OD₆₀₀=0.6 in 2x YT broth containing 100 µg/ml ampicillin. Protein expression was induced with IPTG (0.1 mM) and incubation continued for 16 hours. Cells were pelleted by centrifugation, resuspended in PBS and lysed by sonication (four 10 second bursts at 20 µm with intermittent cooling on ice). Cellular debris was removed by centrifugation and the lysate containing soluble GST-GFP fusion protein was purified using glutathione sepharose columns (Amersham Pharmacia Biotech). Protein was then exchanged and eluted in PBS using a PD10 column (Amersham Pharmacia Biotech). The presence of a single band of correct molecular weight in the protein preparation was confirmed by SDS-PAGE using 4-12% ~~Bis-Tris~~ Bis-TRIS® (hydroxymethyl) aminomethane hydrochloride buffered polyacrylamide gel sold under the trademark NuPAGE-gel electrophoresis (by Invitrogen). To assess protein concentration and purity, the protein preparation was subjected, in duplicate, to acid hydrolysis and filtration before amino acid analysis by ion exchange chromatography using a Pharmacia alpha plus series II analyser.

Please replace the paragraph on page 35, line 17 through page 36, line 2, with the following amended paragraph:

The extinction coefficient (Table 2) was determined on a UV/vis spectrometer (Unicam). Quantum yield (Table 2) was determined according to the method documented by Patterson et al (Biophysical Journal, (1997), 73, 2782-2790). Samples of equal optical density at respective absorbance maxima were prepared, and diluted, in 10mM ~~Tris.HCl~~ TRIS[®] (hydroxymethyl) aminomethane hydrochloride pH 8 for the purified GFP preparation and a fluorescein reference standard (Molecular Probes). Fluorescence emission was measured in the region 490 – 600nm using a LS50B luminescence spectrometer (Perkin Elmer) and results for the GFP preparation were compared directly to those for the fluorescein standard (QY=0.85).